

CLAIMS

1 An exhaust gas purifying catalyst comprising a
metal oxide particle and rhodium supported thereon,
wherein said metal oxide particle comprises a core part
5 relatively rich in ceria and a surface layer relatively
rich in zirconia.

2 The exhaust gas purifying catalyst according to
claim 1, wherein said core part and said surface layer
each comprises a plurality of primary particles.

10 3 The exhaust gas purifying catalyst according to
claim 1 or 2, wherein the molar fraction of cerium is
from 35 to 50 mol% based on the total molar number of
cerium and zirconium in said metal oxide particle.

15 4 The exhaust gas purifying catalyst according to
any one of claims 1 to 3, wherein the total molar
fraction of cerium and zirconium is at least 85 mol%
based on the total molar number of metals in said metal
oxide particle.

20 5 The exhaust gas purifying catalyst according to
any one of claims 1 to 4, wherein said metal oxide
particle has an average particle diameter of less than 10
µm.

25 6 The exhaust gas purifying catalyst according to
any one of claims 1 to 5, wherein at least one element
selected from the group consisting of alkaline earth
metals and rare earths is added to said core part
relatively rich in ceria.

30 7 The exhaust gas purifying catalyst according to
any one of claims 1 to 6, wherein at least one element
selected from the group consisting of alkaline earth
metals and rare earths is added to said surface layer
relatively rich in zirconia.

35 8 A process for producing an exhaust gas
purifying catalyst, comprising:
providing a sol containing at least a
population of ceria colloid particles and a population of
zirconia colloid particles differing in the isoelectric

point with each other,

adjusting the pH of said sol to be closer
to the isoelectric point of said population of ceria
colloid particles than to the isoelectric point of said
5 population of zirconia colloid particles, thereby
aggregating said population of ceria colloid particles,

adjusting the pH of said sol to be closer
to the isoelectric point of said population of zirconia
colloid particles than to the isoelectric point of said
10 population of ceria colloid particles, thereby
aggregating said population of zirconia colloid particles
onto said aggregated population of ceria colloid
particles,

drying and firing the obtained aggregate
15 to obtain a metal oxide particle comprising a core part
relatively rich in ceria and a surface layer relatively
rich in zirconia, and

loading rhodium on the obtained metal
oxide particle.